

CLAIMS

1. A linear compressor unit comprising a magnet (4) which can be displaced back and forth in an electromagnetic alternating field, a piston (7) that is driven by the magnet (4) and a module casing (1) which encloses the cylinder (9) and a buffer volume (24) wherein the cylinder (9) is mounted in the module casing (1) so that it can oscillate, and an inlet opening (13) of the cylinder (9) and an inlet passage (12) of the module casing (1) lie opposite one another without making contact, forming a passage (23) to the buffer volume (24) and wherein a restrictor element (20, 21) is located in the passage (23).
2. The linear compressor unit according to claim 1 wherein the restrictor element is formed by intermeshing walls (20, 21) attached to the module casing (1) or to the cylinder (9).
3. The linear compressor unit according to claim 2 wherein the walls (20, 21) surround the inlet opening (13) or the inlet passage (12) in a ring shape.
4. The linear compressor unit according to any one of the preceding claims, wherein at least one sound-damping chamber (14, 15, 16) through which the medium to be compressed flows, is arranged between the inlet opening (13) of the cylinder (9) and a chamber (8) of the cylinder (9) which receives the piston (7).
5. The linear compressor unit according to any one of the preceding claims, wherein at least one sound-damping chamber (25) through which the medium to be compressed flows, is inserted in the inlet passage (12) of the module casing (1).

6. The linear compressor unit according to claim 5, wherein the chamber (25) is flat-cylindrical and the inlet passage (12) runs along the cylinder axis of the chamber (25).
7. The linear compressor unit according to any one of the preceding claims, wherein the oscillatory holder of the cylinder (9) is formed by an outlet pipe (22) of the cylinder (9).
8. The linear compressor unit according to claim 7, wherein the outlet pipe (22) extends helically around the cylinder (9).
9. The linear compressor unit according to any one of the preceding claims, wherein the magnet (4) which drives the piston (7) is arranged in an axial extension of the piston (7).
10. The linear compressor unit according to any one of claims 1 to 8, wherein the magnet (4) which drives the piston (7) extends in a ring shape around the piston (7).